論文内容の要旨

Construction organization performance is an important aspect of the construction industry. The construction sector, in many countries especially developing countries such as Nigeria, has been identified with many problems, and one of the major problems is poor performance on project delivery. This poor performance of the Nigerian construction industry has been attributed to project management in the aspect of project delays and cost overruns, which constantly result in project failure. In the quest to solve this problem, many studies have been conducted to identify the factors that affect projects and project management. Some previous studies identified factors such as corruption, political influence, religious and tribal sentiment, and organizational culture. These factors have been identified to be embedded into the industry, and spontaneously influence the activities of the industry. The embedded factors have been recognized to influence the contract law and cause adverse effects on contract-bidding processes, resulting in the awarding of contracts to incompetent contractors, thereby leading to project failure and abandonment. These embedded factors affect the employment and work law leading to organizational culture, which results in unfair treatment of employees including unfair working conditions and discrimination on religious and tribal lines, thus, demoralizing project managers and project teams.

Furthermore, a lack of project management practices such as improper project planning and execution have been identified as the causes of poor performance. The shortage of project management practices and insufficient project managers' contributions have been identified as contributory factors to the cause of project delays and cost overruns that lead to numerous project abandonments across the country. However, previous studies only identified the factors contributing to project delays and cost overruns resulting in poor performance in the Nigerian construction industry. There has been no comprehensive study on the interaction of these embedded factors, industry laws and regulations, and organizational culture that affect the utilization of project managers and project managers' contributions to projects. Therefore, identifying the effect of the embedded factors and organizational culture on project managers' contributions promisingly provides new directions to enhance project managers' contributions towards improving construction organizations' performance on projects.

The first study investigated the effect of the embedded factors on the Nigerian construction industry. The author employed institutional analysis in order to understand how these embedded factors affect the institutional environment of Nigerian construction industry, which encompasses the contract laws, employment and work law, and Government policies and regulations, specifically on how these affect project management practices and project managers' contributions. The institutional analysis using a four-level framework developed by Williamson was employed to examine the interrelationships between the embedded factors, institutional laws and regulations, and construction organizations and how these factors hinder the effective utilization of project managers and the implementation of project management practices. It was found that the system of the underutilization of project managers consists of two subsystems: underutilization and lowering commitment. For the former subsystem, corruption, political influence, religious and tribal discrimination, and organizational culture were found to adversely influence the institutional structure of the construction industry in Nigeria. These factors weaken the governance mechanisms within the industry, leading project managers to prioritize corrupt practices over project needs. This result leads to development at the top of the latter subsystem, with minimal incentives and limited opportunities for career growth within construction organizations.

The study revealed a systemic issue in the underutilization of project managers, comprising two subsystems: underutilization and lowered commitment. Underutilization is influenced by factors like corruption, political influence, religious and tribal discrimination, and organizational culture, which weaken governance mechanisms in the Nigerian construction industry. These factors lead project managers to prioritize corrupt practices over project needs, exacerbated by ineffective laws and regulations, resulting in unfair working conditions and project manager underperformance. This situation fosters a lack of incentives and limited career growth opportunities within construction organizations, contributing to lowered commitment. Addressing these systemic issues is crucial for improving project management practices and mitigating the adverse effects of corruption in the Nigerian construction industry.

These findings indicate that project managers are "forced" into a tough environment, much of which is uncontrollable by them, including aspects such as politicians' pursuit of personal gains, corruption, religious and tribal sentiment, and weak governance of law and regulations. These "external" factors always put unnecessary

demands and pressures on project managers. It prevents project managers from using their full potential in their work. Their observed performance is considered to be lower than their true performance. Unfortunately, their organization perceives this observed performance as their true performance. This doubt becomes a "seed" of low trust in the ability and commitment of project managers. Insufficient support for employees is culturally embedded in many Nigerian construction organizations. Low trust toward project managers even causes cuts in support for project managers. This lowers their commitment and adversely affects their performance. The academic novelty is as follows. First, this study identifies that the underutilization problems be broken down into two main problems: underperformance and reduced commitment. As a first step towards solving the problem, it is essential to clarify the structure of the problem. Second, this study shed the light on controllability of system components. As a next step towards problem-solving, it is necessary to identify who should be responsible for developing and implementing each part of the solution. Third, this study demonstrates the applicability of the four-level framework of institutional analysis from the new institutional economics defined by Williamson to a new problem. The first and the second academic novelties were generated because the right theoretical framework, the four-level framework of institutional analysis, was used.

This study is expected to contribute to solving this underutilization problem. This problem seems to have been neglected, except for "blaming" project managers for "low" ability and commitment. However, the problem has been incorrectly perceived and identified. The study provides insight into the actual problem and who should be responsible for solving the problem. The author anticipates that this study will stimulate and facilitate problem-solving efforts in this regard. The findings hold significant potential for addressing systemic issues in the Nigerian construction industry, particularly the underutilization of project managers and organizational support measures to improve project management practices.

In the first study, the author identified a subsystem of lowering commitment, where project managers' contributions are perceived to be low by the organizations. This led to the question "How can project managers' commitment be improved"? The answer to this objective question will foster solutions to enhance project managers' commitment and reduce the challenges of poor project management in the industry. To address this, the author investigated the project management practices in the Nigerian construction industry. This provides the level of project management practices by the construction organizations and the importance of the practices. The

actual contributions of project managers and the importance and expected contributions of project managers by the organizations and the importance were also examined. The author quantitatively measured the difference between the actual contributions of project managers and the expected contributions of project managers by organizations and their importance. Specifically, the results indicate that project managers underperform in most sensitive project management tasks, which pose risks, lead to contribute to project delays and cost overruns.

Through a comprehensive analysis, this study identifies key factors contributing to the underutilization of project managers, manifesting as underperformance and reduced commitment. Within the framework of underperformance, informal embedded factors such as corruption, political influence, religious and tribal sentiments, and organizational culture are pinpointed as significant contributors to inadequate project management practices and the effectiveness of project managers. These factors undermine institutional laws and regulations, including employment and contract laws, and governmental policies, thus eroding the ethical fabric of the NCI. The consequences of underperformance translate into diminished contributions from project managers within the Nigerian construction industry. Proposed solutions emphasize collaborative efforts between government bodies and the NCI to establish and enforce a comprehensive code of conduct addressing issues related to personal gain. Implementing anti-corruption policies and promoting transparent reporting mechanisms are identified as effective measures to mitigate the adverse effects of personal gain.

In addressing the subsystem of reduced commitment among project managers, perceptions of diminished contributions lead to a lack of trust in their abilities and dedication. This lack of trust perpetuates an organizational culture characterized by inadequate support, limited involvement of project managers, insufficient recognition, and unfair working conditions. The study highlights the correlation between reduced commitment among project managers and inadequate project management practices, which contribute to project delays, cost overruns, and ultimately, project failures within the Nigerian construction industry. The findings of this study have several implications for both theory and practice. The game theory model provides a theoretical framework that helps explain the behavior of PMRs and their organizations. Practically, the study highlights the importance of continuous and tailored support mechanisms and institutional reforms in enhancing PMR performance. Organizations that effectively implement these measures can expect to see a higher ratio of outperformance, leading to overall improved organizational

performance.